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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Beverly L. DAVIDSON

Confirmation No. 4232

Serial No.: 09/866,532

Group Art Unit: Unassigned

Filing Date: May 25, 2001

Examiner: Unassigned

Title: METHODS OF TRANSDUCING NEURAL CELLS USING LENTIVIRUS VECTORS

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. § 1.97

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The information listed below may be material to the examination of the above-identified application. Copies of the information and completed PTO-1449 forms are submitted herewith. The Examiner is respectfully requested to make this information of official record in the application. The information includes:

International Publication No. WO 99/15641 published April 1, 1999;

International Publication No. WO 99/36511 published July 22, 1999;

An et al., "Marking and Gene Expression by a Lentivirus Vector in Transplanted Human and Nonhuman Primate CD34⁺ Cells," *Journal of Virology* 74:1286-1295 (2000);

Barlett et al., "Selective and Rapid Uptake of Adeno-Associated Virus Type 2 in Brain," *Human Gene Therapy* 9:1181-1186 (1998);

Benedetti et al., "Gene Therapy of Experimental Brain Tumors Using Neural Progenitor Cells," *Nature Medicine* 6(4):447-450 (2000);

Blömer et al., "Highly Efficient and sustained Gene Transfer in Adult Neurons with a Lentivirus Vector," *Journal of Virology* 71(9):6641-6649 (1997);

Case et al., "Stable Transduction of Quiescent CD34⁺ CD38⁻ Human Hematopoietic Cells by HIV-1-Based Lentiviral Vectors," *Proc. Natl. Acad. Sci. U.S.A.* 96:2988-2993 (1999);

Chamberlin et al., "Recombinant Adeno-Associated Virus Vector: Use for Transgene Expression and Anterograde Tract in the CNS," *Brain Research* 793:169-175 (1998);

Cone and Mulligan, "High-Efficiency Gene Transfer Into Mammalian Cells: Generation of Helper-Free Recombinant Retrovirus with Broad Mammalian Host Range," *PNAS Proc. Natl. Acad. Sci. U.S.A.* 81:6349 (1984);

Davidson et al., "Recombinant Adeno-Associated Virus Type 2, 4, and 5 Vectors: Transduction of Variant Cell Types and Regions in the Mammalian Central Nervous System," *Proc. Natl. Acad. Sci. U.S.A.* 97:3428-3432 (2000);

Davidson et al., "A Model System in *In Vivo* Gene Transfer Into the Central Nervous System Using an Adenoviral Vector," *Nature Genetics* 3:219-233 (1993);

During et al., "*In Vivo* Expression of Therapeutic Human Genes for Dopamine Production the Caudates of MPTP-Treated Monkeys Using an AAV Vector," *Gene Therapy* 5:820-827 (1998);

Evans et al., "Human Cord Blood CD34⁺ CD38⁻ Cell Transduction Via Lentivirus-Based Gene Transfer Vector," *Human Gene Therapy* 19:1479-1489 (1999);

Ghadge et al., "CNS Gene Delivery By Retrograde Transport of Recombinant Replication-Defective Adenoviruses," *Gene Therapy* 2:132-137 (1995);

Herrlinger et al., "Neural Precursor Cells for Delivery of Replication Conditional HSV-1 Vectors to Intracerebral Gliomas," *Molecular Therapy* 1(4):347-357(2000);

Johnston et al., "Minimum Requirements for Efficient Transduction of Dividing and Nondividing Cells by Feline Immunodeficiency Virus Vectors," *Journal of Virology* 73(6):4991-5000 (1999);

Kordower et al., "Lentiviral Gene Transfer to the Nonhuman Primate Brain," *Experimental Neurology* 160:1-16 (1999);

Lorenzetti et al., "Repeat Instability and Motor Incoordination in Mice With a Targeted Expanded CAG Repeat in the *Scal* Locus," *Human Molecular Genetics* 9(5):779-785 (2000);

Mann et al., "Construction of a Retrovirus Packaging Mutant and Its Use to Produce Helper-Free Defective Retrovirus," *Cell* 33:153-159 (1983);

Mastrangeli et al., "*In Vivo* Adenovirus-Mediated Gene Transfer to the Central Nervous System," *Clinical Research* 41:223A Abstract (1993);

McCown et al., "Differential and Persistent Expression Patterns of CNS Gene Transfer by an Adeno-Associated Virus (AAV) Vector," *Brain Research* 713:99-107 (1996);

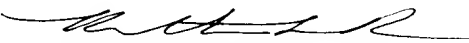
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- Vig et al., "Relationship Between Ataxin-1 Nuclear Inclusions and Purkinje Cell Specific Proteins in SCA-1 Transgenic Mice," *Journal of Neurological Science* 174:100-110 (2000);
- Wagner et al., "Induction of Midbrain Dopaminergic Phenotype in *Nurr1*-Overexpressing Neural Stem Cells by Type 1 Astrocytes," *Nat. Biotechnol.* 17:653-659 (1999);
- Xiao et al., "Gene Transfer by Adeno-Associated Virus Vectors into the Central Nervous System," *Experimental Neurology* 144:113-124 (1997); and

Zufferey et al., "Multiply Attenuated Lentiviral Vector Achieves Efficient Gene Delivery *In Vivo*," *Nature Biotechnology* 15:871-875 (1997).

This Information Disclosure Statement under 37 CFR § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

Respectfully submitted,

Date: 11/08/01

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